



“Low budget”

iGEM

Cheap and non time consuming challenge
Created by: iGEM Colombia-Uniandes

Why are we doing this?

Molecular Biology processes must be subjected to constant improvement cost-efficient wise to make Systems Biology more available worldwide. Existing methods most of the times require the user to have access to moderately expensive materials or fancy laboratory equipment.

This is why the Colombia Uniandes iGEM team decided to launch this non-time consuming challenge. It is focused on finding new, NON-TRADITIONAL manners of conducting one or more of the following processes by modifying them totally or partially, whether it is by substituting materials or equipment or both:

- ❖ DNA Extraction
- ❖ Transformation
- ❖ PCR



Money is always a problem when we want to work at the lab. We wish it would come down from the sky whenever we need it

How to participate?

This challenge only requires your imagination and a few other things:

1. Choose one or more processes.
2. Create a novel manner of conducting the process
3. Record your new protocol in a short video o .ppt file.
4. Make a table that resembles the price of your protocol (Your currency and dollars)
5. Send everything to: d.olivera1320@uniandes.edu.co before OCTOBER 1st.



DNA extraction

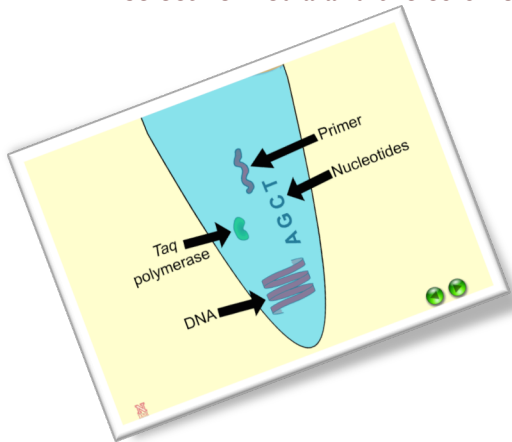
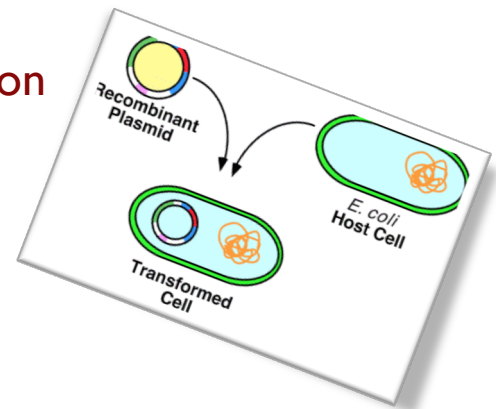
DNA extraction is probably one of the most common processes done in every iGEM lab, and whether it is whole genome or plasmids it is probably done with the help of a kit.

If you choose this process you will have to extract DNA of your favorite bacteria or yeast. As a result a picture of an electrophoresis of that DNA must be sent.

Transformation

Transformation is practically coupled to DNA extraction, also it is necessary to maintain and replicate the parts from the kit.

For this process you will have to transform the Psb1c3 plasmid of the registry. As a result a pictures of the selective media and the colonies must be shown



PCR

Not only in the iGEM competitions but in near every lab being able to perform a PCR is mandatory. Watch out for patents!

For this process you will have to amplify any fragment of DNA you want. As a result the gel's picture of the amplified DNA material must be shown.

And the winner is....

The following are some of the categories by which will be judged:

- **Applicability to general use:** Can another team use the same protocol?
- **Completeness:** Does the video explain everything, from where to get all the materials to how to see the results?
- **Novelty:** Is it something completely new that nobody had done before?
- **Yield compared to the traditional way:** Is the product useful to other subsequent processes?
- **Technical complexity and feasibility:** The easier the better
- **Impact on society (if applies):** Can it help low budget labs to improve their work?



Any further questions can be submitted to ca.sanchez1209@uniandes.edu.co or d.olivera1320@uniandes.edu.co